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COTTON

Cotton Fiber and Processing Test Results

CROP of

1974



Agricultural Marketing Service
U.S. DEPARTMENT OF AGRICULTURE
Memphis, Tenn. 38122 October 25, 1974

COTTON FIBER AND PROCESSING TEST RESULTS, CROP OF 1974

Discussion of Test Results

Cotton Division laboratories of the Agricultural Marketing Service report short staple average fiber length from the Southwest to be shorter and less uniform than a year ago. Cottons are finer and stronger at zero gage strength tests. Shirley Analyzer nonlint content is lower than a year ago. Yarns spun from these samples show weaker yarn strength and lower yarn appearance grades. Yarn imperfections are fewer than a year ago. The spinning potential yarn number is lower.

Medium staple samples tested from the Southeast are limited, however, the fiber length is shorter than a year ago. Cottons are coarser and stronger at zero gage tests. Shirley Analyzer nonlint content and picker and card waste are lower. Yarns spun from these samples are weaker with higher appearance grades. Yarn imperfections are lower. The spinning potential yarn number is lower than last year.

Medium staple samples tested from the South Central show the fiber length to be shorter and less uniform. Cottons are finer and slightly weaker than a year ago. Yarns spun from these samples are weaker and show a lower appearance grade. Yarn imperfections are fewer.

No additional medium staple sample lots were received during this test period from the Southwest.

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These reports are published bi-weekly during the harvesting season and will be summarized in a comprehensive report at the end of the crop year. A detailed description of the tests shown in this report may be found in the summary report for the previous season.^{1/} These reports are available on request from the Standardization Section, Cotton Division, Agricultural Marketing Service, U. S. Department of Agriculture, 4841 Summer Avenue, Memphis, TN 38122.

^{1/} Summary of Cotton Fiber and Processing Test Results, Crop of 1973,
USDA, AMS, Cotton Division, May 1974.

Table 1.--Cotton: Averages of fiber and processing tests from selected gin points in the United States through October 18, 1974 1/

Staple group Area, and Crop year	Lots tested	Fiber test results							Processing test results				
		Fibrograph		Mike fine- ness	Fiber strength		S A nonlint	P & C waste	Yarn quality			Spin. Potent.	
		2.5% span	50/2.5 unif.		Zero gage	1/8" gage			Skein str.	Appear- ance	Imperf- ections		
		Inches	Pct.	Rdg.	Mpsi	G/tex	Pct.	Pct.	Lbs.	Index	No.	Yarn No.	
		No.	22s Carded Yarn										
<u>Short Staple:</u> Southwest 1973 1974	10	1.00	47	4.4	82	21	4.2	6.4	100	111	22	44	
	9	.96	44	4.0	88	21	3.5	6.7	90	104	17	41	
<u>Medium Staple:</u> Southeast 1973 1974	2	1.14	46	4.4	82	24	4.0	6.1	116	95	37	68	
	3	1.08	46	4.6	86	24	2.5	5.2	98	103	20	61	
South Central 1973 1974	12	1.10	46	4.6	85	23	2.7	5.1	110	118	18	59	
	3	1.07	44	4.2	83	23	2.8	4.9	95	110	16	58	
Southwest 1973 1974	22	1.08	45	4.4	81	22	2.6	5.4	99	100	24	59	
	27	1.07	45	4.3	84	23	2.8	5.8	102	91	19	60	
Significant dif- ference <u>2/</u>		0.02	2	0.2	2	1	0.5	0.5	4(22s)	5	2	3	

1/ Based on a limited number of samples of modal quality

2/ Minimum differences considered to be significant for comparisons in this table. These guides are based upon averages of a number of lots and are not applicable to individual samples.

Table 2 --Cotton, American upland short staple: Quality characteristics by production areas, crop of 1974

Production Area, Classification &				Fiber Test Results						Processing Test Results - Carded Yarns														
Sample Number		Stple	Digital Fibrograph		Mike	Fiber Strength		Elon-gat'n 1/8"	S.A. Non-lint		Color		P & C Waste	Strength		Elongation		Appearance Index		Imprfct'ns		Spin. Potent-ial		
			2.5% span	Unif		Zero Gage	1/8" Gage		Gr	Yel	8s or 74 tx	22sor 27 tx		8s or 74 tx	22s or 74 tx	8s or 74 tx	22sor 27 tx	8s or 74 tx	22sor 27 tx					
No	Grade								Pct	Pct	No	No	Pct	Lbs	Lbs	Pct	Pct	No	No	No	No			
Name & Code		32s	In	Pct	Rdg	Mpsi	G/tex																	
SOUTHWEST AREA																								
CENTRAL TEXAS TAYLOR																								
3	LM	LT	SP	52	30	0.95	43	4.0	84	20	5.7	3.6	6	3	261	79	6.2	5.4	120	100	32	16	33	
															85 PERCENT									
															LANKART 57									

Table 3 --Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1974

Production Area, Classification & Sample Number				Fiber Test Results										Processing Test Results - Carded Yarns									
No	Grade	Stple	32s	Digital Fibrograph		Mike	Fiber Strength		Elon-gat'n 1/8"	S.A. Non-Lint	Color Raw Stock		P & C Waste	Strength		Elongation		Appearance Index		Imprfect'ns		Spin. Potential	
				2.5% span	Unif.		Zero Gage	1/8" Gage			Gra	Yel		22s or 27 tx	50s or 12 tx	27 tx	12 tx	22s or 27 tx	50s or 12 tx	27 tx	12 tx		22s or 27 tx
SOUTHEAST AREA																							
ALABAMA																							
PRATTVILLE																							
1	SLM		41	35	1.11	46	4.1	92	26	5.0	2	3	5.1	113	41	100 PERCENT	4.2	90	70	27	20	76	
ST CLAIR																							
1	SLM		41	34	1.05	46	5.1	86	23	6.1	3	3	5.6	88	24	85 PERCENT	3.3	120	100	9	6	53	
GEORGIA																							
ALLETOWN																							
1	SLM		41	34	1.07	47	4.7	79	23	6.1	2	3	4.8	93	30	95 PERCENT	3.8	100	70	23	19	53	
SOUTH CENTRAL AREA																							
LOUISIANA																							
BUNKIE																							
1	SLM LT SP		42	34	1.05	47	4.9	79	21	6.0	5	3	4.8	73	22	90 PERCENT	3.2	120	90	11	9	45	
MISSISSIPPI																							
GUNNISON																							
1	SLM		41	35	1.09	43	3.9	83	24	7.4	2	3	4.2	103	33	100 PERCENT	4.4	100	70	22	14	64	
INDIANCLA																							
1	SLM		41	34	1.08	42	3.9	86	24	6.3	3	4	5.7	110	36	100 PERCENT	4.3	110	90	16	9	66	

Table 4 --Cotton, American upland long staple: Quality characteristics by production areas, crop of 1974

Production Area, Classification & Sample Number				Fiber Test Results										Processing Test Results - Carded Yarns										
No	Grade Name & Code	Style	32s	Digital Fibrograph		Mike	Fiber Strength		Elon- gat'n 1/8"	S.A. Non- Lint	Color Raw Stock		P & C and Comber Waste	Strength		Elongation		Appearance Index		Imprfct'ns		Spin. Poten- tial		
				2.5% span	Unif.		Pct	Rdg			Mpsi	G/tex		Pct	Pct	No	No	Yel	No	Pct	Lbs		Lbs	Pct
SOUTHEAST AREA																								
NORTH CAROLINA																								
DUNN																								
41	36	1.16	46		4.2	81	21	6.3	3.6	2	3	8.4		103	33	6.1	4.3	110	80	17	18	61		
1	SLM										*	17.9		121	43	6.5	4.9	110	100	11	7			
SOUTH CENTRAL AREA																								
MISSISSIPPI																								
MORGAN CITY																								
41	36	1.17	46		4.7	90	23	5.6	3.1	3	3	8.1		100	31	5.1	3.8	100	80	18	14	63		
1	SLM										*	19.7		123	43	5.8	4.3	120	100	8	7			

* Comber Waste and Combed Yarn Data